

DEFINITION OF TERMS
GROUND WATER USE IN THE STATE OF ARIZONA
PREPARED FOR THE TONOPAH
HICKMAN EGG & POULTRY FACILITY

This document provides definitions and historic water resources information and specifically references those regulations that may apply to the Tonopah Hickman Egg & Poultry Facility.

100 YR DROUGHT

In response to Arizona's '100 Year Severe Drought' of record (1898-1904), the Federal Reclamation Act of 1902 allowed the establishment of the Salt River Project Water Users Association (SRVWUA) in 1903.

Arizona water usage laws were drafted by SRVWUA counsel (Snell & Wilmer), commencing with The Kent Decree, which established classes of land based on water uses of record (Snell & Wilmer continues to serve as counsel to the SRVWUA). However, water quality and state/federal regulations, are primarily reflected in the Groundwater Management Act of 1980 and the Clean Water Act.

THE 1980 GROUNDWATER MANAGEMENT CODE (CODE)

The Code has three primary goals, to:

1. Control severe overdraft occurring in many parts of the state.
2. Provide a means to allocate the state's limited groundwater resources to most effectively meet the changing needs of the state; and
3. Augment Arizona's groundwater through water supply development.

To accomplish these goals, the Code set up a comprehensive management framework and established the Arizona Department of Water Resources (ADWR) to administer the Code's provisions. The Code established three levels of water management to respond to different groundwater conditions:

- The lowest level of management includes general provisions that apply statewide.
- The next level of management applies to Irrigation Non-Expansion Areas (INAs).
- **The highest level of management, with the most extensive provisions, is applied to Active Management Areas (AMAs) where groundwater overdraft is most severe. NOTE: The Tonopah Hickman's site is 3.84 mi within the AMA.**

The boundaries of AMAs and INAs generally are defined by groundwater basins and sub-basins rather than by the political lines of cities, towns, or counties.

The Code contains six key provisions:

1. Establishment of a program of groundwater rights and permits.
2. A provision prohibiting irrigation of new agricultural lands within AMAs.
3. Preparation of a series of five water management plans for each AMA designed to create a comprehensive system of conservation targets and other water management criteria.
4. Development of a program requiring developers to demonstrate a 100-year assured water supply for new growth.
5. A requirement to meter/measure water pumped from all large wells.
6. A program for annual water withdrawal and use reporting. **These reports may be audited to ensure water-user compliance with the provisions of the Groundwater Code and management plans. Penalties may be assessed for non-compliance.**

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Validation that the location of the Tonopah Hickman's Egg & Poultry Factory is within the AMA was provided by Ryan Kackisch, Industrial Water Use Planner, ADWR 602.771.8500. Although the site is outside of the Kent Decree Lands, it is still within the AMA and subject to oversight by ADWR.

Ryan Kackisch, ADWR, advised February 3 and 4, 2014 that:

- ADWR reviews conservational allotments.
- Water usage for site has grandfathered water rights of 100 acre foot per acre (afa) per year.
- He approves all water allocation permits.
- Large corporations tend to buy up 'Type 2' water rights from neighboring entities.
- He will keep an eye on Type 2 buy ups.

1972 CLEAN WATER ACT

(http://www.in.gov/idem/files/rules_erb_20130213_cwa_summary.pdf)

Formerly the Federal Water Pollution Control Act of 1948, the Clean Water Act (CWA) consists of two major parts:

- Provisions which authorize federal financial assistance for municipal sewage treatment plant construction
- **Regulatory requirements that apply to industrial and municipal dischargers**

The plan places rigorous demands on those who are regulated by it to achieve higher and higher levels of pollution abatement under deadlines specified by law. Unfortunately, federal jurisdiction is broad, particularly regarding establishment of national standards or effluent limitations. Certain responsibilities are delegated to the states, and the Act embodies a philosophy of federal-state partnership in which the feds set the agenda and standards for pollution abatement, while states carry out day-to-day activities of implementation and enforcement.

The Act embodies the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit, which is the Act's principal enforcement tool. **The law has civil, criminal and administrative enforcement provisions and also permits citizen suit enforcement.**

The Act utilizes both water quality and technology-based effluent limitations to protect water quality.

Technology-based effluent limitations are specific numerical limitations established by EPA and placed on certain pollutants from certain sources. They are applied to industrial and municipal sources through numerical effluent limitations in discharge permits.

Water quality standards...consist for the beneficial use or uses of a water body (recreation, water supply, industrial, or other), plus a numerical or narrative statement identifying maximum concentrations of various pollutants which would not interfere with the designated use.

The 1987 amendments to the **Act encourages states to pursue groundwater protection activities as part of their overall nonpoint pollution control efforts.** Federal financial assistance was authorized to support demonstration projects and actual control activities.

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PROPOSED WATER PONDS

The 1986 Lakes Bill does not allow for ponding greater than 12,230 sq ft within the AMA, and that ponds cannot use groundwater. Any supplemental waters (effluent, e.g. Central Arizona Project (CAP)) must have ADWR director approval. Any changes to well (drilling, pump use, etc.) will be monitored by ADWR. Hickman is required to provide water usage records on a regular basis.

GRANDFATHERED WATER RIGHTS

(<http://www.azwater.gov/AzDWR/WaterManagement/documents/GroundwaterCode.pdf>)

Three types of grandfathered rights are derived from past individual water use:

1. An Irrigation grandfathered right - confers the right to irrigate specific plots of land that had been irrigated with groundwater between 1975 and 1980. Land without an Irrigation grandfathered right may not be irrigated with groundwater. **Under the Code, "irrigate" means to apply water to two or more acres of land to produce plants for sale or human consumption or as feed for livestock.** An Irrigation grandfathered right specifies how much groundwater may be used. That amount will vary over time, according to a formula established in the management plans. An Irrigation grandfathered right may not be sold apart from the associated land.
2. A Type 1 right - associated with land permanently retired from farming and converted to a non-irrigation use, e.g., building a new industrial plant or a subdivision. This right, like an Irrigation grandfathered right, may be conveyed only with the land. The maximum amount of groundwater that may be pumped each year using a Type 1 right is three acre feet per acre.
3. Groundwater withdrawn under a Type 2 right - can only be used for a non-irrigation purpose. The right is based on historical pumping of groundwater for a non-irrigation use and equals the maximum amount pumped in any one year between 1975 and 1980. Examples of non-irrigation uses include industry, livestock watering, and golf courses. Type 2 rights are the most flexible because they may be sold separately from the land or well. In addition, the owner of a Type 2 right may, with ADWR approval, withdraw groundwater from a new location within the same AMA. It is possible to lease a portion of a Type 2 right, but if the right is sold, it may not be divided; instead, the entire right must be sold.

Finally, the **Code directs ADWR to develop and implement water conservation requirements for agricultural, municipal and industrial water users** in five consecutive periods:

- First Management Period: 1980 - 1990
- Second Management Period: 1990 - 2000
- Third Management Period: 2000 - 2010
- Fourth Management Period: 2010 - 2020
- Fifth Management Period: 2020 – 2025

These management plans contain more rigorous water conservation and management requirements with each successive period.

Users who pump groundwater from non-exempt wells in AMAs also must report annual pumpage to ADWR. This provision helps ADWR determine how much water is being used and where it is being used. The Code also requires users to pay an annual groundwater withdrawal fee. The fee is used to offset the cost of managing this resource and to fund the augmentation efforts of the Arizona Water Banking

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Authority. Withdrawal fees also may be used for conservation assistance, augmentation projects and, after 2006, retirement of irrigated land.

CREATION OF STATEWIDE WATER ADVISORY GROUP

In 2006, ADWR in conjunction with rural legislative leadership and the Governor's office began a series of discussions with a group of representatives from state, county, city, tribal, private non-governmental organizations about the most immediate water resources problems facing the rural areas. The Advisory Group found an imbalance between growth and water supply planning in some rural areas of the state – varying considerably from county to county. After eight months of discussions and 14 public meetings throughout the state, ADWR introduced three bills for legislative action resulting from these discussions. A fourth bill was introduced by State Representative Jennifer Burns (R – Dist. 25). All of the bills passed into law in FY2007.

1. The first bill allows counties and cities to adopt requirements for demonstration of a 100-year adequate water supply for new development.
2. The second bill provides for a water resources revolving fund and grants to plan and build water projects.
3. **The third bill prohibits the drilling of a well if it causes poor quality water to be drawn into another well.**
4. The fourth bill provides for the formation of the Upper San Pedro Water District that is charged with conserving, reusing, recharging and augmenting the water supplies of the district to protect the flows of the San Pedro River and assist in meeting the water supply needs of Fort Huachuca and the surrounding communities (later defeated by vote within Cochise County).

CONSERVATION REQUIREMENTS (MUNICIPAL, INDUSTRIAL, AND AGRICULTURAL SECTORS)

One of ADWR's more successful management tools has been the **development and implementation of mandatory conservation requirements for all users of groundwater within the AMAs**. Municipal water providers, industrial users and agricultural water users have all been subject to these requirements since the First Management Plan became effective in 1987. The current conservation requirements are described in the Third Management Plan 2000 -2010 and its modifications.

The three primary sector-related conservation requirements are summarized below.

Chapter 4 - Agricultural Conservation Requirements

- No new agricultural acreage in production.
- **Each farm (Irrigation Grandfathered Right) is assigned a maximum annual groundwater allotment, based on assumed irrigation efficiencies of 65 to 80%.**
- Certain farms have enrolled in an optional best management practices program.
- Irrigation district distribution system losses are not to exceed 10%.

Chapter 6 - Industrial Conservation Requirements

- **Allotment-based requirements for large turf facilities, dairies and feedlots.**
- Best management practices or design limitations are required of mines, cooling towers, sand and gravel operations, large scale power plants and new large landscape users.